

Remarks/Arguments

This application has been carefully considered in light of the Non-Final Office Action mailed April 5, 2006. As a result, various amendments have been made to the claims to further emphasize the novelty of the present invention over the cited prior art. Claims 1-6 remain in the application.

Claims 1 and 4-6 have been rejected under 35 U.S.C. 102(b) as being directly anticipated by the teachings of the reference to US Patent 2,382,421 to Johnson et al. Claims 2 and 3 have been rejected under 35 U.S.C. 103(a) as being obvious and therefore unpatentable over a combination of the teachings of the reference to Johnson et al when further considered in view of the teachings of McGraw-Hill Book Company (Mechanical Engineers Handbook, 1941, pages 1914-1915), hereinafter, the handbook.

For the reasons set forth below, reconsideration of the rejections and allowance of claim 1-6, is respectfully requested.

With the present invention it is desired to create a vacuum along a pipe or other area by using a vertical liquid flow to entrain gases, such as air, from the pipe or area where the

vacuum is to be created. In order to create the vacuum, it is necessary to provide a closed vessel 1 in which a liquid is contained and re-circulated from a lower vessel 10 which is open to atmosphere. A pump is used to circulate liquid from the vessel 10 upwardly to the closed vessel 1. The liquid in the closed vessel 1 falls through an enclosed tube to the open vessel 10. The gas, such as air, is entrained into the liquid flowing from the upper vessel 1 to the lower vessel 20. Such entrained gas is obtained by opening a gas inlet to admit the gas which is drawn from the area in which the vacuum is to be created (see page 4 beginning at line 7 of the present application as filed).

In order to create a suction from the area in which the vacuum is to be created, the vessel 1 must be closed to prevent gas flow into the vessel from other sources. Thus, gases may only be entrained into the flowing liquid when the gas inlet is opened to the area where the vacuum is being created. Neither of the references teaches such a vacuum creating apparatus or process.

The reference to Johnson et al discloses a gas compression apparatus and not a vacuum producing device. The patent does disclose a liquid column, however, the liquid flows from a open vessel to a lower vessel. Because the upper vessel is open to

atmosphere, an effective vacuum can not be established as is possible using the method and apparatus of the present invention. As Johnson et al does not disclose a vacuum creating structure including a closed upper vessel and a gas inlet opening that is opened to draw gas from an area to create a reduced pressure, the reference does not anticipate nor make obvious the teachings of the present invention as claimed.

In a like manner, the handbook discloses a hydraulic compressor and not a vacuum creating device or method. In the reference, there is no upper closed vessel including a gas inlet that is opened to permit gases to be drawn form an area in which it is desired to create at least a partial vacuum and wherein the gases are entrained into the flow of liquid from the upper closed vessel to a lower point or vessel. Essential, the handbook reference operates as does the Johnson et al reference to create hydraulic compression but does not create gaseous flow to create a vacuum as taught by the present invention.

In light of the foregoing, the present invention as claimed defines a vacuum producing device and method which is not anticipated nor disclosed by the prior art references taken alone or in combination. Therefore, withdrawal of the art rejections

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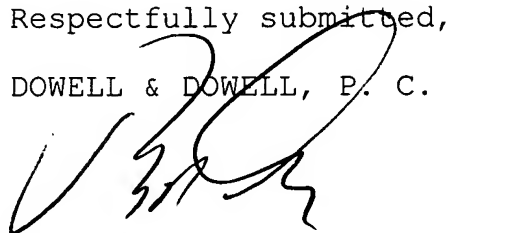
is requested and allowance of claims 1-6 solicited.

Should the Examiner have any questions concerning the allowability of the claims over the art or if there are any additional issues that must be discussed, the Examiner is invited to contact the undersigned attorney-of-record at the telephone number shown below for further expediting the prosecution of this application and/or to schedule a personal interview before taking any action that may be considered as final.

As this response is being filed after the shortened statutory period, a Request for a Three Month Extension of Time is submitted herewith together with the fee of \$510.00. Any deficiencies may be charged to Deposit Account 04-1577.

Respectfully submitted,

DOWELL & DOWELL, P. C.

A handwritten signature in dark ink, appearing to be 'R. A. Dowell', is written over a horizontal line.

Ralph A. Dowell, Reg. No.: 26,868

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